

ABSTRACT

Erosion-resistant liquid/liquid hydrocyclone liners, wherein the weight and cost of the liners are kept within acceptable parameters through the construction of a composite hydrocyclone liner, comprised of two or more different materials. The hydrocyclone liner includes a head section that is fashioned, primarily, of a highly erosion-resistant material, such as tungsten carbide. The liner also includes a separate separation section that is primarily fashioned of a material that may be less erosion-resistant but which is less brittle and more physically durable than that used to construct the head section. As a result of this composite construction, the liner is less likely to fail mechanically during installation or use. The head and separation sections are removably affixed to one another. The separation section of the hydrocyclone liner is provided with one or more structural supports to provide mechanical strength and resistance to bending. A liner is also described having a removable involute insert of highly erosion resistant material.